

AMENDMENTS TO THE CLAIMS

Claim 1. (Withdrawn)

An optical filter comprising:

a mirror including a plurality of first dielectric layers having a first index of refraction and a plurality of second dielectric layers having a second index of refraction,

wherein a plurality of said first dielectric layers have an integer quarter wave optical thickness and at least one of said first dielectric layers has a non-integer quarter wave optical thickness, and

wherein a plurality of said second dielectric layers have an integer quarter wave optical thickness and at least one of said second dielectric layers has a non-integer quarter wave optical thickness.

Claim 2. (Withdrawn)

The optical filter of claim 1 wherein said first dielectric layer having a non-integer quarter wave optical thickness has a physical thickness different than a physical thickness of said first dielectric layers having an integer quarter wave optical thickness.

Claim 3. (Withdrawn)

The optical filter of claim 1 wherein said second dielectric layer having a non-integer quarter wave optical thickness has a physical thickness different than

a physical thickness of said second dielectric layers having an integer quarter wave optical thickness.

Claim 4. (Withdrawn)

The optical filter of claim 1 further comprising:

a second mirror including a plurality of first dielectric layers having said first index of refraction and a plurality of second dielectric layers having said second index of refraction; and,

a spacer positioned between said mirror and said second mirror.

Claim 5. (Withdrawn)

The optical filter of claim 1 wherein said optical thickness of said first dielectric layer having a non-integer quarter wave optical thickness is selected to enhance transmission of a predetermined wavelength.

Claim 6. (Withdrawn)

The optical filter of claim 5, wherein said optical thickness of said first dielectric layer having a non-integer quarter wave optical thickness is selected to maintain a predefined reflectivity for said mirror.

Claim 7. (Withdrawn)

The optical filter of claim 5 wherein said predetermined wavelength corresponds to a service channel in an optical communication system.

Claim 8. (Withdrawn)


The optical filter of claim 1 wherein said optical thickness of said second dielectric layer having a non-integer quarter wave optical thickness is selected to enhance transmission of a predetermined wavelength.

Claim 9. (Withdrawn)

The optical filter of claim 8 wherein said optical thickness of said second dielectric layer having a non-integer quarter wave optical thickness is selected to maintain a predefined reflectivity for said mirror.

Claim 10. (Withdrawn)

The optical filter of claim 8 wherein said predetermined wavelength corresponds to a service channel in an optical communications system.

 Claim 11. (Currently Amended)

An optical communication device, comprising:

an optical communication path; and

✓ a plurality of optical filtering elements coupled to said optical communication path, each of said plurality of filtering elements having a single optical interference filter with two passbands, a first passband being configured to add/drop a plurality of optical signals, each of ~~which~~ the optical signals being at a respective one of a plurality of wavelengths,

a second passband of said optical interference filter being configured to add/drop ~~and~~ a service channel at a wavelength different than the plurality of wavelengths of the optical signals.

Claim 12. (Original)

An optical communication device in accordance with claim 11, wherein said optical communication path is a continuous optical communication path.

✓ Claim 13. (Cancelled)

Claim 14. (Original)

An optical communication device, comprising:

an optical communication path, said optical communication path being configured to carry a plurality of optical signals, each at a respective one of a plurality of wavelengths, and a service channel optical signal at a wavelength different than said plurality of wavelengths; and

an optical interference filter coupled to said optical communication path, said optical interference filter being configured to select a grouping of said plurality of optical signals and said service channel optical signal.


Claim 15. (Currently Amended)

An optical communication device in accordance with claim 14, wherein said plurality of wavelengths are within a range of 1530nm to 1570nm ~~about 1550nm~~, and said wavelength of said service channel optical signal being spectrally spaced from said plurality of wavelengths.

Claim 16. (Currently Amended)


An optical communication device in accordance with claim 15, wherein said wavelength of said service channel is substantially equal to 1310nm ~~131nm~~.

Claim 17. (Original)

 An optical communication device in accordance with claim 15, wherein said wavelength of said service channel is within a range of and including 1625nm to 1650nm.

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Claim 18. (New)

 The optical communication device of claim 11, wherein each of said plurality of optical signals corresponds to an optical payload channel, the optical payload channels being separated by a channel spacing.

Claim 19. (New)

The optical communication device of claim 18, wherein the plurality of optical payload channels is comprised of six optical payload channels.

Claim 20. (New)

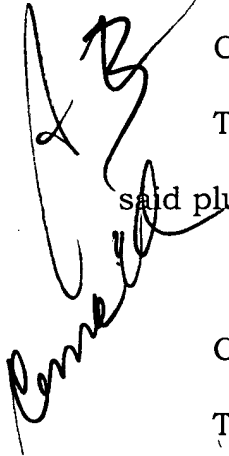
The optical communication device of claim 19, wherein each of said six optical payload channels has a center wavelength within a range of 1530nm to 1570nm.

Claim 21. (New)

The optical communication device of claim 11, wherein the service channel has a center wavelength within a range of 1625nm to 1650nm.

Claim 22. (New)

The optical communication device of claim 11, wherein the service channel has a center wavelength of 1310nm.

 Claim 23. (New)

The optical communication device of claim 14, wherein said grouping of said plurality of optical signals is comprised of six payload channels.

Claim 24. (New)

The optical communication device of claim 23, wherein the six payload channels are spaced apart by a predetermined channel spacing.

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